

SEQUENCE LISTING

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<120> Antibody Specific for Phosphatase Subunit of LAR

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<222> (6)..(1826)

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<222> (213)..(953)

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<222> (1080)..(1826)

<223> Phosphatase Domain 2

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<308> DDBJ/EMBL/GenBank Accession No.Y00815

<309> 1995-09-19

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Met Arg Arg Leu Asn Tyr Gln Thr Pro Gly Met Arg Asp His Pro Pro	
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atc ccc atc acc gac ctg gcg gac aac atc gag cgc ctc aaa gcc aac	146
Ile Pro Ile Thr Asp Leu Ala Asp Asn Ile Glu Arg Leu Lys Ala Asn	
35 40 45	
gat ggc ctc aag ttc tcc cag gag tat gag tcc atc gac cct gga cag	194
Asp Gly Leu Lys Phe Ser Gln Glu Tyr Glu Ser Ile Asp Pro Gly Gln	
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Gln Phe Thr Trp Glu Asn Ser Asn Leu Glu Val Asn Lys Pro Lys Asn	
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Arg Tyr Ala Asn Val Ile Ala Tyr Asp His Ser Arg Val Ile Leu Thr	
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Ser Ile Asp Gly Val Pro Gly Ser Asp Tyr Ile Asn Ala Asn Tyr Ile	
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Asp Gly Tyr Arg Lys Gln Asn Ala Tyr Ile Ala Thr Gln Gly Pro Leu	
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ccc gag acc atg ggc gat ttc tgg aga atg gtg tgg gaa cag cgc acg	434
Pro Glu Thr Met Gly Asp Phe Trp Arg Met Val Trp Glu Gln Arg Thr	
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gcc act gtg gtc atg atg aca cgg ctg gag gag aag tcc cgg gta aaa	482
Ala Thr Val Val Met Met Thr Arg Leu Glu Glu Lys Ser Arg Val Lys	
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Cys Asp Gln Tyr Trp Pro Ala Arg Gly Thr Glu Thr Cys Gly Leu Ile	

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Gln Val Thr Leu Leu Asp Thr Val Glu Leu Ala Thr Tyr Thr Val Arg				
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Thr Phe Ala Leu His Lys Ser Gly Ser Ser Glu Lys Arg Glu Leu Arg				
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Gln Phe Gln Phe Met Ala Trp Pro Asp His Gly Val Pro Glu Tyr Pro				
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act ccc atc ctg gcc ttc cta cga cgg gtc aag gcc tgc aac ccc cta				722
Thr Pro Ile Leu Ala Phe Leu Arg Arg Val Lys Ala Cys Asn Pro Leu				
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Asp Ala Gly Pro Met Val Val His Cys Ser Ala Gly Val Gly Arg Thr				
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Gly Cys Phe Ile Val Ile Asp Ala Met Leu Glu Arg Met Lys His Glu				
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Lys Thr Val Asp Ile Tyr Gly His Val Thr Cys Met Arg Ser Gln Arg				
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Asn Tyr Met Val Gln Thr Glu Asp Gln Tyr Val Phe Ile His Glu Ala				
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Leu Tyr Ala His Ile Gln Lys Leu Gly Gln Val Pro Pro Gly Glu Ser				
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Val Thr Ala Met Glu Leu Glu Phe Lys Leu Leu Ala Ser Ser Lys Ala				

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Phe Val Val Asp Pro Met Ala Glu Tyr Asn Met Pro Gln Tyr Ile Leu			
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<223> "Xaa"="Ile" or "Val".

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5

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Gly Ser Val Leu Arg Ile Gln Pro Leu Arg Val Gln Arg Asp Glu Ala
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atc tat gag tgt aca gct act aac agc ctg ggt gag atc aac act agt 697
Ile Tyr Glu Cys Thr Ala Thr Asn Ser Leu Gly Glu Ile Asn Thr Ser
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Ser Ile Asp Met Gly Pro Gln Leu Lys Val Val Glu Lys Ala Arg Thr
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Ala Thr Met Leu Cys Ala Ala Gly Gly Asn Pro Asp Pro Glu Ile Ser
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Ala Val, Asp Gly Glu Asp Arg Gly Arg His Val Val Asp Gly Ile Ser
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Ser Pro Ser Ile Gln Ser Arg Thr Met Pro Val Glu Gln Val Phe Ala	
975	980 985
aag aac ttc cgg gtg gcg gct gca atg aag acg tct gtg ctg ctc agc	3433
Lys Asn Phe Arg Val Ala Ala Ala Met Lys Thr Ser Val Leu Leu Ser	
990	995 1000 1005
tgg gag gtt ccc gac tcc tat aag tca gct gtg ccc ttt aag att ctg	3481
Trp Glu Val Pro Asp Ser Tyr Lys Ser Ala Val Pro Phe Lys Ile Leu	
1010	1015 1020
tac aat ggg cag agt gtg gag gtg gac ggg cac tcg atg cgg aag ctg	3529
Tyr Asn Gly Gln Ser Val Glu Val Asp Gly His Ser Met Arg Lys Leu	
1025	1030 1035
atc gca gac ctg cag ccc aac aca gag tac tcg ttt gtg ctg atg aac	3577
Ile Ala Asp Leu Gln Pro Asn Thr Glu Tyr Ser Phe Val Leu Met Asn	
1040	1045 1050
cgt ggc agc agc gca ggg ggc ctg cag cac ctg gtg tcc atc cgc aca	3625
Arg Gly Ser Ser Ala Gly Gly Leu Gln His Leu Val Ser Ile Arg Thr	
1055	1060 1065
gcc ccc gac ctc ctg cct cac aag ccg ctg cct gcc tct gcc tac ata	3673
Ala Pro Asp Leu Leu Pro His Lys Pro Leu Pro Ala Ser Ala Tyr Ile	
1070	1075 1080 1085
gag gac ggc cgc ttc gat ctc tcc atg ccc cat gtg caa gac ccc tcg	3721
Glu Asp Gly Arg Phe Asp Leu Ser Met Pro His Val Gln Asp Pro Ser	
1090	1095 1100
ctt gtc agg tgg ttc tac att gtt gtg gta ccc att gac cgt gtg ggc	3769
Leu Val Arg Trp Phe Tyr Ile Val Val Val Pro Ile Asp Arg Val Gly	
1105	1110 1115
ggg agc atg ctg acg cca agg tgg agc aca ccc gag gaa ctg gag ctg	3817
Gly Ser Met Leu Thr Pro Arg Trp Ser Thr Pro Glu Glu Leu Glu Leu	
1120	1125 1130
gac gag ctt cta gaa gcc atc gag caa ggc gga gag gag cag cgg cgg	3865
Asp Glu Leu Leu Glu Ala Ile Glu Gln Gly Gly Glu Glu Gln Arg Arg	
1135	1140 1145
cgg cgg cgg cag gca gaa cgt ctg aag cca tat gtg gct gct caa ctg	3913

Arg Arg Arg Gln Ala Glu Arg Leu Lys Pro Tyr Val Ala Ala Gln Leu
 1150 1155 1160 1165
 gat gtg ctc ccg gag acc ttt acc ttg ggg gac aag aag aac tac cgg 3961
 Asp Val Leu Pro Glu Thr Phe Thr Leu Gly Asp Lys Lys Asn Tyr Arg
 1170 1175 1180
 ggc ttc tac aac cgg ccc ctg tct ccg gac ttg agc tac cag tgc ttt 4009
 Gly Phe Tyr Asn Arg Pro Leu Ser Pro Asp Leu Ser Tyr Gln Cys Phe
 1185 1190 1195
 gtg ctt gcc tcc ttg aag gaa ccc atg gac cag aag cgc tat gcc tcc 4057
 Val Leu Ala Ser Leu Lys Glu Pro Met Asp Gln Lys Arg Tyr Ala Ser
 1200 1205 1210
 agc ccc tac tcg gat gag atc gtg gtc cag gtg aca cca gcc cag cag 4105
 Ser Pro Tyr Ser Asp Glu Ile Val Val Gln Val Thr Pro Ala Gln Gln
 1215 1220 1225
 cag gag gag ccg gag atg ctg tgg gtg acg ggt ccc gtg ctg gca gtc 4153
 Gln Glu Glu Pro Glu Met Leu Trp Val Thr Gly Pro Val Leu Ala Val
 1230 1235 1240 1245
 atc ctc atc atc ctc att gtc atc gcc atc ctc ttg ttc aaa agg aaa 4201
 Ile Leu Ile Ile Leu Ile Val Ile Ala Ile Leu Leu Phe Lys Arg Lys
 1250 1255 1260
 agg acc cac tct ccg tcc tct aag gat gag cag tcg atc gga ctg aag 4249
 Arg Thr His Ser Pro Ser Ser Lys Asp Glu Gln Ser Ile Gly Leu Lys
 1265 1270 1275
 gac tcc ttg ctg gcc cac tcc tct gac cct gtg gag atg cgg agg ctc 4297
 Asp Ser Leu Leu Ala His Ser Ser Asp Pro Val Glu Met Arg Arg Leu
 1280 1285 1290
 aac tac cag acc cca ggt atg cga gac cac cca ccc atc ccc atc acc 4345
 Asn Tyr Gln Thr Pro Gly Met Arg Asp His Pro Pro Ile Pro Ile Thr
 1295 1300 1305
 gac ctg gcg gac aac atc gag cgc ctc aaa gcc aac gat ggc ctc aag 4393
 Asp Leu Ala Asp Asn Ile Glu Arg Leu Lys Ala Asn Asp Gly Leu Lys
 1310 1315 1320 1325
 ttc tcc cag gag tat gag tcc atc gac cct gga cag cag ttc acg tgg 4441

Phe Ser Gln Glu Tyr Glu Ser Ile Asp Pro Gly Gln Gln Phe Thr Trp	
1330	1335
1340	
gag aat tca aac ctg gag gtg aac aag ccc aag aac cgc tat gcg aat	4489
Glu Asn Ser Asn Leu Glu Val Asn Lys Pro Lys Asn Arg Tyr Ala Asn	
1345	1350
1355	
gtc atc gcc tac gac cac tct cga gtc atc ctt acc tct atc gat ggc	4537
Val Ile Ala Tyr Asp His Ser Arg Val Ile Leu Thr Ser Ile Asp Gly	
1360	1365
1370	
gtc ccc ggg agt gac tac atc aat gcc aac tac atc gat ggc tac cgc	4585
Val Pro Gly Ser Asp Tyr Ile Asn Ala Asn Tyr Ile Asp Gly Tyr Arg	
1375	1380
1385	
aag cag aat gcc tac atc gcc acg cag ggc ccc ctg ccc gag acc atg	4633
Lys Gln Asn Ala Tyr Ile Ala Thr Gln Gly Pro Leu Pro Glu Thr Met	
1390	1395
1400	1405
ggc gat ttc tgg aga atg gtg tgg gaa cag cgc acg gcc act gtg gtc	4681
Gly Asp Phe Trp Arg Met Val Trp Glu Gln Arg Thr Ala Thr Val Val	
1410	1415
1420	
atg atg aca cgg ctg gag gag aag tcc cgg gta aaa tgt gat cag tac	4729
Met Met Thr Arg Leu Glu Glu Lys Ser Arg Val Lys Cys Asp Gln Tyr	
1425	1430
1435	
tgg cca gcc cgt ggc acc gag acc tgt ggc ctt att cag gtg acc ctg	4777
Trp Pro Ala Arg Gly Thr Glu Thr Cys Gly Leu Ile Gln Val Thr Leu	
1440	1445
1450	
ttg gac aca gtg gag ctg gcc aca tac act gtg cgc acc ttc gca ctc	4825
Leu Asp Thr Val Glu Leu Ala Thr Tyr Thr Val Arg Thr Phe Ala Leu	
1455	1460
1465	
cac aag agt ggc tcc agt gag aag cgt gag ctg cgt cag ttt cag ttc	4873
His Lys Ser Gly Ser Ser Glu Lys Arg Glu Leu Arg Gln Phe Gln Phe	
1470	1475
1480	1485
atg gcc tgg cca gac cat gga gtt cct gag tac cca act ccc atc ctg	4921
Met Ala Trp Pro Asp His Gly Val Pro Glu Tyr Pro Thr Pro Ile Leu	
1490	1495
1500	
gcc ttc cta cga cgg gtc aag gcc tgc aac ccc cta gac gca ggg ccc	4969

Ala Phe Leu Arg Arg Val Lys Ala Cys Asn Pro Leu Asp Ala Gly Pro	
1505	1510
atg gtg gtg cac tgc agc gcg ggc gtg ggc cgc acc ggc tgc ttc atc	5017
Met Val Val His Cys Ser Ala Gly Val Gly Arg Thr Gly Cys Phe Ile	
1520	1525
gtg att gat gcc atg ttg gag cgg atg aag cac gag aag acg gtg gac	5065
Val Ile Asp Ala Met Leu Glu Arg Met Lys His Glu Lys Thr Val Asp	
1535	1540
atc tat ggc cac gtg acc tgc atg cga tca cag agg aac tac atg gtg	5113
Ile Tyr Gly His Val Thr Cys Met Arg Ser Gln Arg Asn Tyr Met Val	
1550	1555
cag acg gag gac cag tac gtg ttc atc cat gag gcg ctg ctg gag gct	5161
Gln Thr Glu Asp Gln Tyr Val Phe Ile His Glu Ala Leu Leu Glu Ala	
1570	1575
gcc acg tgc ggc cac aca gag gtg cct gcc cgc aac ctg tat gcc cac	5209
Ala Thr Cys Gly His Thr Glu Val Pro Ala Arg Asn Leu Tyr Ala His	
1585	1590
atc cag aag ctg ggc caa gtg cct cca ggg gag agt gtg acc gcc atg	5257
Ile Gln Lys Leu Gly Gln Val Pro Pro Gly Glu Ser Val Thr Ala Met	
1600	1605
gag ctc gag ttc aag ttg ctg gcc agc tcc aag gcc cac acg tcc cgc	5305
Glu Leu Glu Phe Lys Leu Leu Ala Ser Ser Lys Ala His Thr Ser Arg	
1615	1620
ttc atc agc gcc aac ctg ccc tgc aac aag ttc aag aac cgg ctg gtg	5353
Phe Ile Ser Ala Asn Leu Pro Cys Asn Lys Phe Lys Asn Arg Leu Val	
1630	1635
aac atc atg ccc tac gaa ttg acc cgt gtg tgt ctg cag ccc atc cgt	5401
Asn Ile Met Pro Tyr Glu Leu Thr Arg Val Cys Leu Gln Pro Ile Arg	
1650	1655
ggt gtg gag ggc tct gac tac atc aat gcc agc ttc ctg gat ggt tat	5449
Gly Val Glu Gly Ser Asp Tyr Ile Asn Ala Ser Phe Leu Asp Gly Tyr	
1665	1670
aga cag cag aag gcc tac ata gct aca cag ggg cct ctg gca gag agc	5497

Arg Gln Gln Lys Ala Tyr Ile Ala Thr Gln Gly Pro Leu Ala Glu Ser

1680

1685

1690

acc gag gac ttc tgg cgc atg cta tgg gag cac aat tcc acc atc atc 5545

Thr Glu Asp Phe Trp Arg Met Leu Trp Glu His Asn Ser Thr Ile Ile

1695

1700

1705

gtc atg ctg acc aag ctt cgg gag atg ggc agg gag aaa tgc cac cag 5593

Val Met Leu Thr Lys Leu Arg Glu Met Gly Arg Glu Lys Cys His Gln

1710

1715

1720

1725

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Tyr Trp Pro Ala Glu Arg Ser Ala Arg Tyr Gln Tyr Phe Val Val Asp

1730

1735

1740

ccg atg gct gag tac aac atg ccc cag tat atc ctg cgt gag ttc aag 5689

Pro Met Ala Glu Tyr Asn Met Pro Gln Tyr Ile Leu Arg Glu Phe Lys

1745

1750

1755

gtc acg gat gcc cgg gat ggg cag tca agg aca atc cgg cag ttc cag 5737

Val Thr Asp Ala Arg Asp Gly Gln Ser Arg Thr Ile Arg Gln Phe Gln

1760

1765

1770

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Phe Thr Asp Trp Pro Glu Gln Gly Val Pro Lys Thr Gly Glu Gly Phe

1775

1780

1785

att gac ttc atc ggg cag gtg cat aag acc aag gag cag ttt gga cag 5833

Ile Asp Phe Ile Gly Gln Val His Lys Thr Lys Glu Gln Phe Gly Gln

1790

1795

1800

1805

gat ggg cct atc acg gtg cac tgc agt gct ggc gtg ggc cgc acc ggg 5881

Asp Gly Pro Ile Thr Val His Cys Ser Ala Gly Val Gly Arg Thr Gly

1810

1815

1820

gtg ttc atc act ctg agc atc gtc ctg gag cgc atg cgc tat gag ggc 5929

Val Phe Ile Thr Leu Ser Ile Val Leu Glu Arg Met Arg Tyr Glu Gly

1825

1830

1835

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Val Val Asp Met Phe Gln Thr Val Lys Thr Leu Arg Thr Gln Arg Pro

1840

1845

1850

gcc atg gtg cag aca gag gac cag tat cag ctg tgc tac cgt gcg gcc 6025

Ala Met Val Gln Thr Glu Asp Gln Tyr Gln Leu Cys Tyr Arg Ala Ala

1855

1860

1865

ctg gag tac ctc ggc agc ttt gac cac tat gca acg taactaccgc 6071

Leu Glu Tyr Leu Gly Ser Phe Asp His Tyr Ala Thr 1881

1870

1875

1880

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